Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) Apparatus for measuring uniformity of a laminar material as the material is delivered from a laminar material delivery machine, the apparatus comprising:

a measurement rig arranged across the width of the laminar material, the measurement rig carrying:

a linear array of light sources arranged to direct light onto the laminar material; and

a linear array of optical sensors, each optical sensor being paired with a light source and being configured to receive light reflected by the laminar material from at least the light source with which it is paired and to thereafter produce a signal indicative of the amount of reflected light it receives;

a sheet of transparent material between the linear array of light sources and the laminar material; and

a processor for receiving signals from each of the optical sensors and processing each of the signals to produce measures of uniformity of the linear material for each optical sensor, whereby said apparatus produces measures of uniformity related to spaced apart locations across the width of the laminar material;

wherein the measurement rig is mounted and configured to be lifted relative to the laminar material to perform a calibration, and wherein in the calibration the processor processes signals corresponding to light reflected from the light sources by the sheet of transparent material to produce a calibration measure.

2. (Original) Apparatus as claimed in claim 1, wherein each light source and optical sensor pair are arranged with their major optical axes substantially perpendicularly to the direction of travel of the laminar material.

3. (Currently Amended) Apparatus as claimed in claim 2, wherein said major optical axes of each light source and optical sensor pair are offset to perpendicular such that they intersect at the ~~web~~ laminar material, with the bisector of their optical axes being perpendicular to the

laminar material ~~web~~.

4. (Original) Apparatus as claimed in claim 1, wherein said light sources are light emitting diodes (LEDs).

5. (Original) Apparatus as claimed in claim 1, wherein said processor is configured to obtain a signal indicative of the amount of light received at each optical sensor at predetermined intervals.

6. (Currently Amended) Apparatus as claimed in claim 5, wherein the outputs of the sensors are read sequentially by said processor to thereby produce a raster scan of the laminar material, and wherein the laminar material is a textile web.

7. (Original) Apparatus as claimed in claim 4, wherein said measurement rig excites said LEDs individually and the signal from each optical sensor corresponds to the period during which the optical sensors paired LED is excited.

8. (Currently Amended) Apparatus as claimed in claim 6, wherein the predetermined interval between scans is chosen so that the distance the laminar material ~~web~~ travels between scans matches the separation between adjacent sensors.

9. (Currently Amended) Apparatus as claimed in claim 8, wherein said apparatus comprises a speed sensor for monitoring the speed of the laminar material ~~web~~ delivery machine ~~system~~ and said processor determines the pre-determined interval from the monitored speed.

10. (Original) Apparatus as claimed in claim 1, wherein the measurement rig comprises a mounting block within which the light sources and the optical sensors are mounted.

11. (Original) Apparatus as claimed in claim 10, wherein the optical sensors are mounted within individual holes and set back from an aperture of their respective hole which faces the laminar material.

12. (Original) Apparatus as claimed in claim 10, wherein the light sources are mounted within an elongate slot extending the length of the mounting block whereby light sources may provide illumination for optical sensors adjacent to the optical sensor with which they are paired.

13. (Original) Apparatus as claimed in claim 2, wherein the optical axes of the light sources and sensors intersect approximately 50 mm below the measurement rig.

14. (Cancelled)

15. (Cancelled)

16. (Currently Amended) Apparatus as claimed in claim 1, wherein said processor is configured to produce a measure of uniformity in the form of a measure of web aerial density whereby said apparatus is configured to produce measures of uniformity for [[a]] the laminar material which is a textile web.

17.-26. (Cancelled)